

## ABSTRACT OF THE DISCLOSURE

A control apparatus is provided for a valve actuating system which is operable to lift an intake valve or an exhaust valve of an internal combustion engine and includes a lift characteristic changing mechanism for changing a lift characteristic of the intake valve or the exhaust valve. The control apparatus calculates a target operation value of the lift characteristic changing mechanism, and calculates a realizable range of the operation value which can be realized by the lift characteristic changing mechanism, based on a controlled variable that can be given to the lift characteristic changing mechanism and at least one parameter related to an environment surrounding the lift characteristic changing mechanism. If the target operation value is not within the realizable range of the operation value, the control apparatus calculates a new target operation value to be within the realizable range.